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# Dimensions of the fuel hardship experience

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## What am I talking about?

- Three-quarters of “fuel poor” households are poor<sup>1</sup>
- One in five individuals live below the poverty line<sup>2</sup>
  - What is their experience of fuel-related poverty”?
- What are the dominant patterns of the “fuel hardship” experience?

1. Source: DECC Annual report on fuel poverty statistics 2011 (England)

2. Source: DWP Households below average income report 2011 (UK)

## This study

Builds on a 2009 study

- Anderson, White & Finney (2010) *“You just have to get by” Coping with low income and cold homes.*
  - Funded by eaga CT
  - Published by the Centre for Sustainable Energy
  - Quantitative survey
  - Semi-structured interviews

## Quantitative survey

- NatCen Omnibus Survey
- 699 households with low incomes
- Bespoke module
  - Fuel hardship
  - Financial difficulties
  - Material and social deprivation

## What aspects of fuel hardship?

- Strategies to cut back on fuel use
- Strategies to keep warm
- Problems with the home
- Others
  - Finding fuel bills a heavy burden
  - Thermal comfort too cold
  - ‘Going without’ keeping the home warm
  - Cutting back on spending on heating
  - Defaulting on fuel bills

## How can we take an holistic view?

### Step 1: Principal Components Analysis

- To identify dimensions underlying questions

### Step 2: Cluster analysis

- To explore how these dimension interact
- And segment households based on these

### Findings: Interpret the clusters

- Based on the cluster variables
- And socio-demographic and other measures

## Five dimensions (1-3)

### **“Cutting back” on fuel use**

Fewer hot meals or drinks

Turned out lights at home

Used less hot water

Turned heating off

Only heated and used one room

Turned heating down

Turned heating down/off in some rooms

### **“Fabric of the home”**

Damp/mould on walls or ceilings

Condensation

Rot in window frames or floors

Damp/mould on floors, carpets or furniture

Draughts

### **“Heating systems”**

Heating difficult to control or regulate

Heating system or radiators not sufficient



## Five dimensions (4,5)

### **“Everyday measures” to keep warm**

Kept curtains closed all day

Wore outdoor clothes inside

### **“Going cold” due to concerns about affordability**

Went without keeping home adequately warm

Cut back on spending on heating to make ends meet

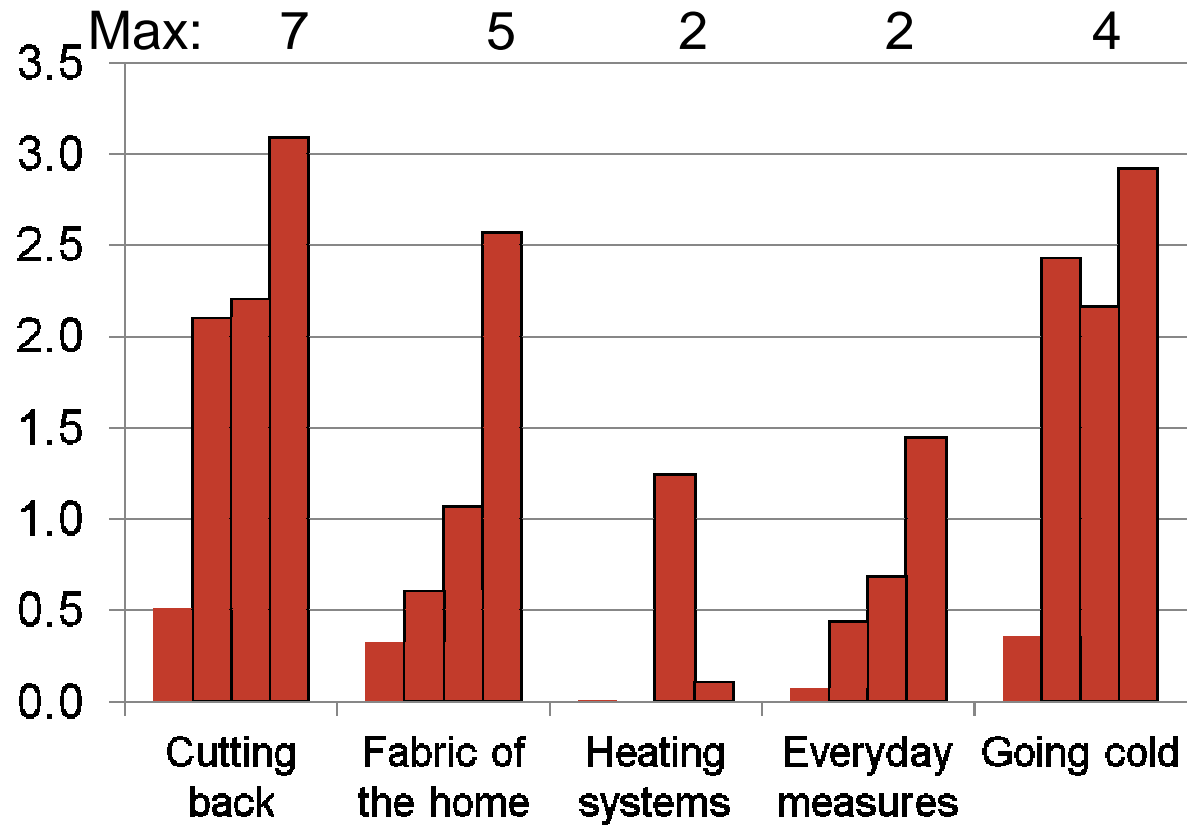
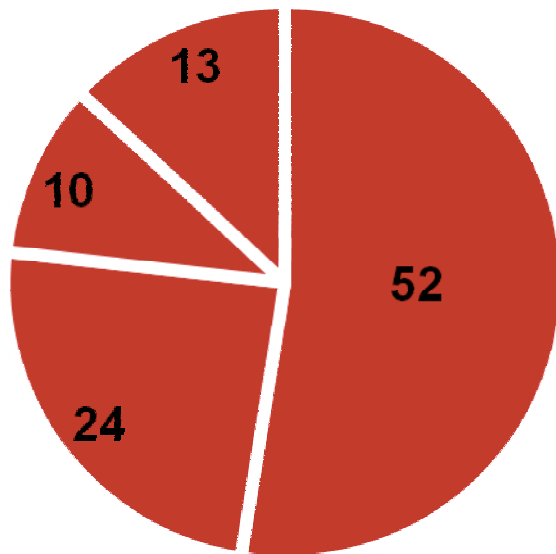
Thermal comfort: too cold

Fuel bill burden: heavy

Correlations between dimensions:

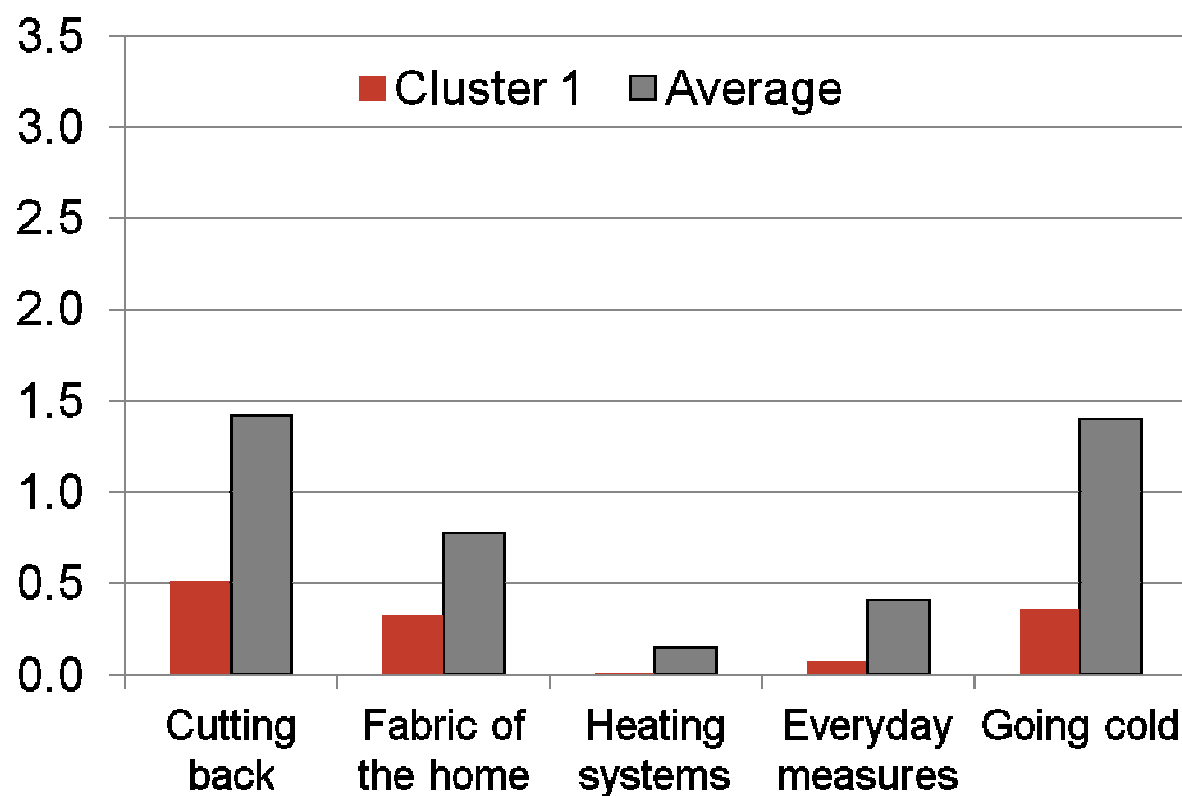
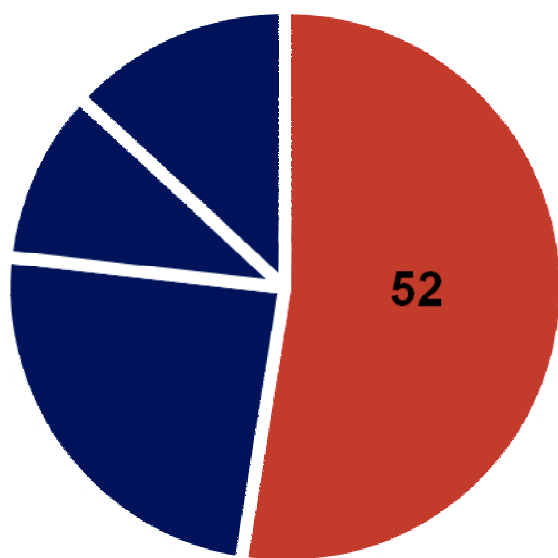
- .173 to .588

## Findings: Four profiles of fuel hardship



10

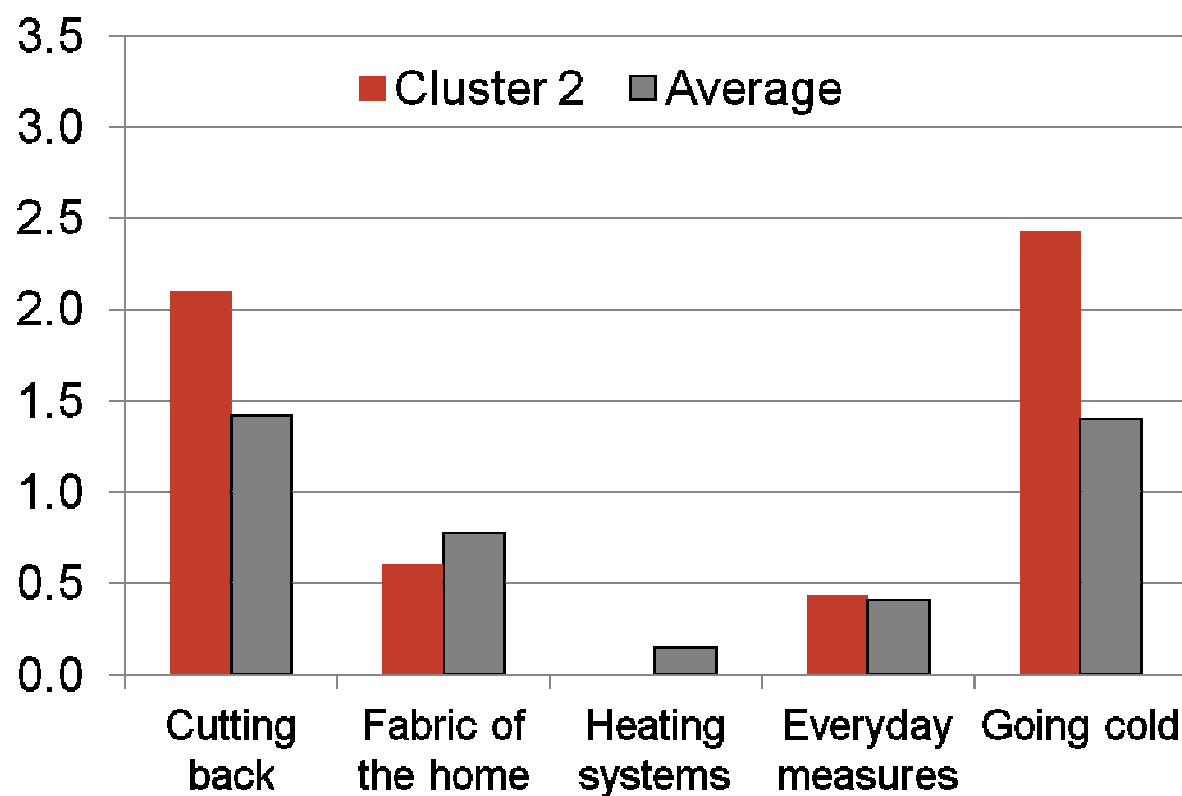
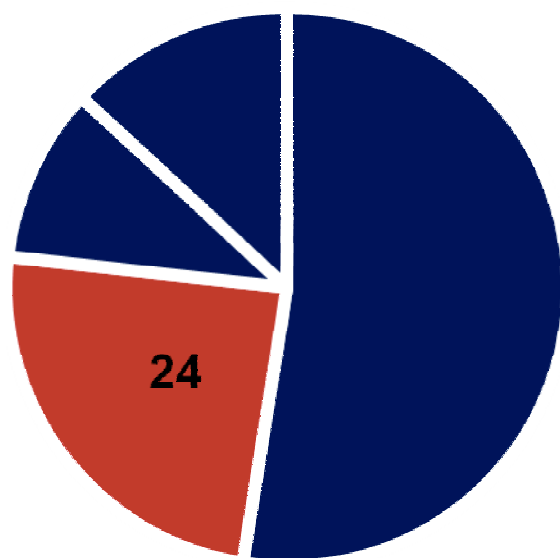
## Cluster 1: “Managing to keep warm”



**Older · Owners · No fall in income · Not deprived**

11

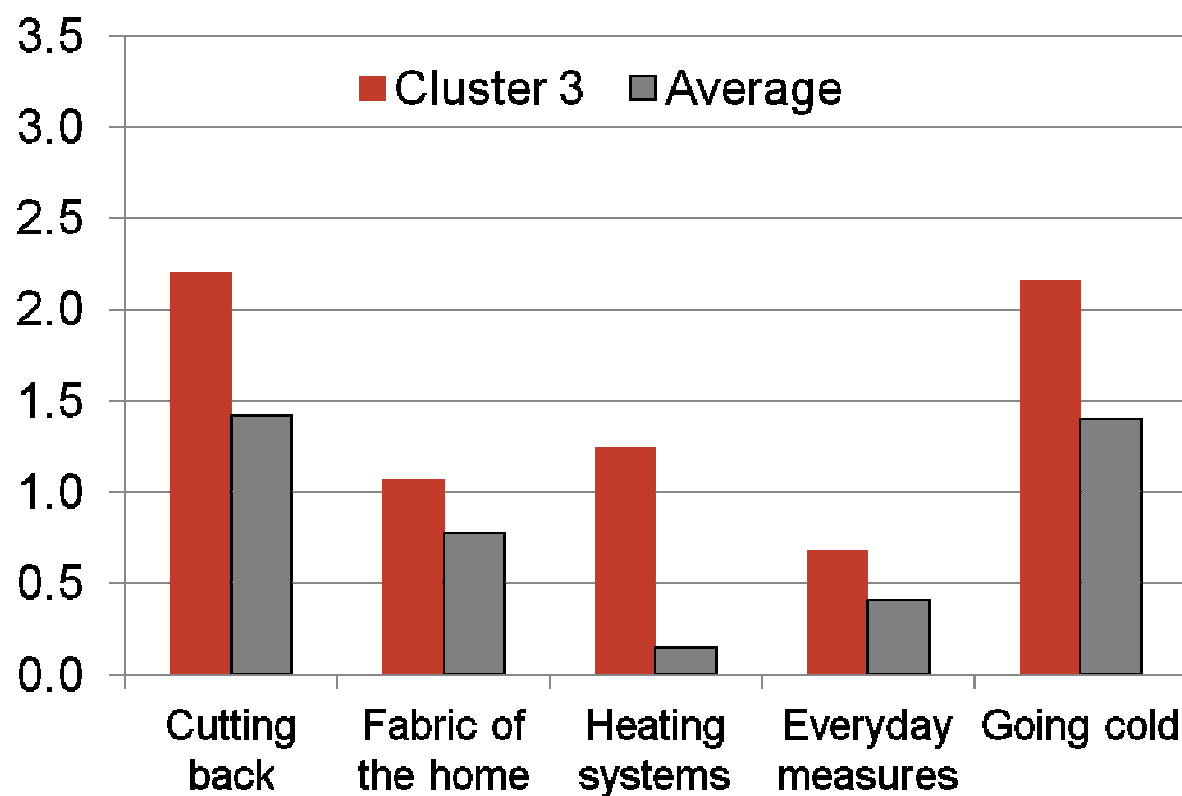
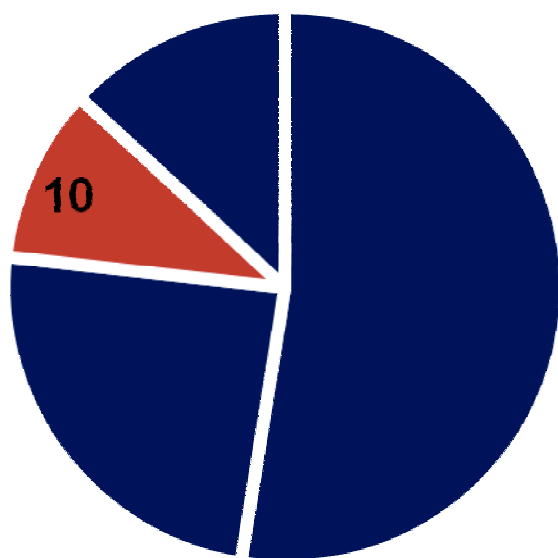
## Cluster 2: “Rationers”



**Middle-age** · Fall in income · **Deprived**

Cutting back · Drawing savings · **Electric heaters**

## Cluster 3: “Poor heating”

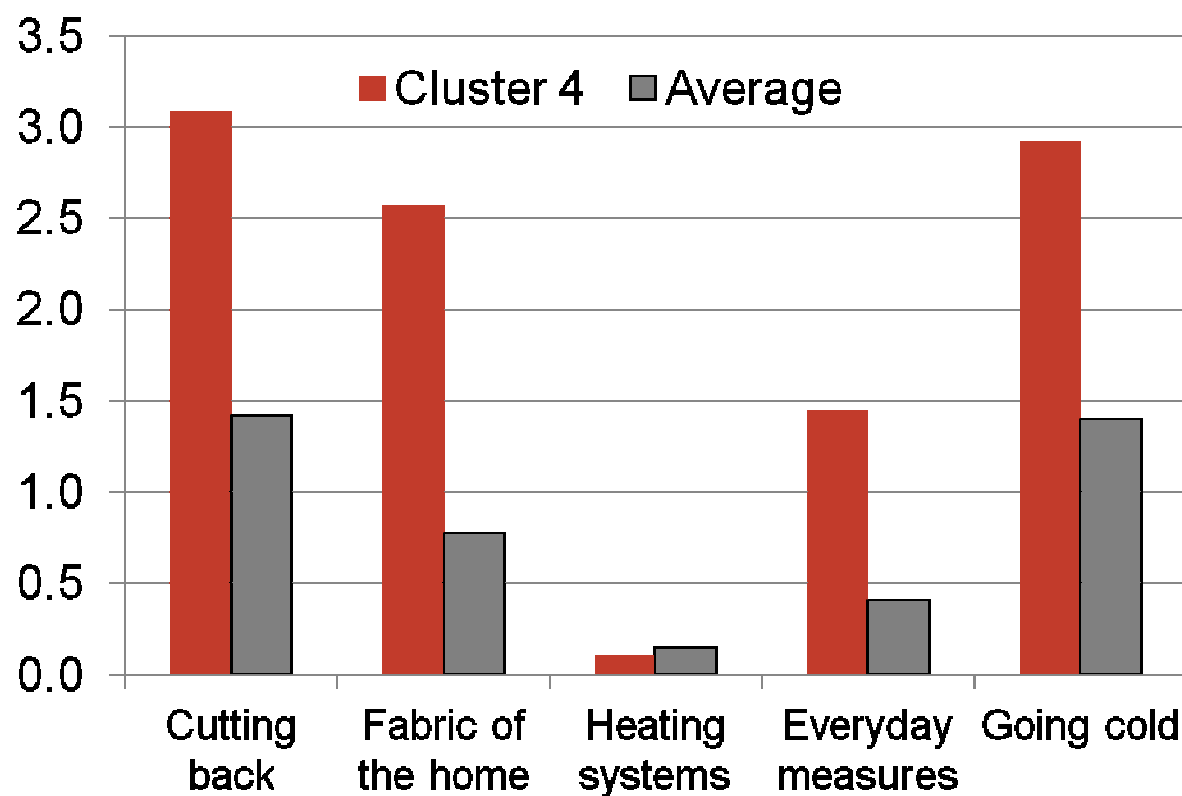
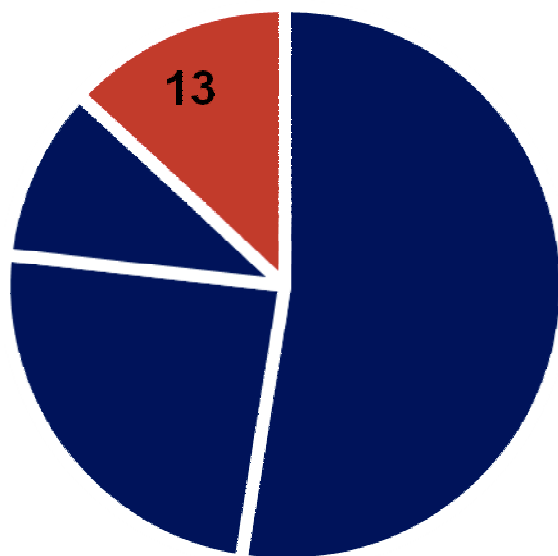


**Middle-age · Working poor · Fall in income · Deprived**

Cutting back · Increased borrowing · Payment default

13

## Cluster 4: “Poor homes”



Young · Renting · LT poor · Cutting back+ · **Deprived (severe)** · **Pre-pay** · ***Not electric heaters*** · Leaky roof

## What can we conclude from this?

- Homogeneous and identifiable groups
  - *among low income households*
  - Nuanced differences evident
- No groups untouched by fuel hardship?
- Clear progression of severity
  - Link with income poverty (Hills)
  - But different aspects of experience important
- Cause and effect relationships unclear
  - But 'structural' factors strong drivers

## Where should the policy focus be?

- Poor people in “Poor homes”:
  - Housing stock; income; transition heating use?
- “Poor heating”:
  - Modernise/regulate heating systems; hsg stock?
- “Rationers”:
  - Income; back to work policies?
- “Managing to keep warm”
  - Maintain current support?



# Thank you

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